

5 What is Claimed is:

1. An illumination system in a liquid crystal projector comprising:

a light source;

10 a first fly eye lens having first lens cells each with a first center point, and second lens cells each with a second center point disposed in outer parts of the first lens cells, for receiving beams of lights from the light source in correspondence to the first center points of the first lens cells and the second center points of the second lens cells, respectively; and,

a second fly eye lens having a plurality of lens cells for refracting the beams from the first fly eye lens into parallel beams.

2. An illumination system as claimed in claim 1, wherein the first center point of the first lens cell is located at a point a distance away from a center axis of the first lens cell, on which the beam from the light source is incident.

20 3. An illumination system as claimed in claim 1, wherein the second center point of the second lens cell is located at the center axis of the second lens cell.

4. An illumination system as claimed in claim 1, wherein the first lens cells are arranged in a center part of the first fly eye lens along a height direction center line of the first fly eye lens.

25 5. An illumination system as claimed in claim 1, wherein the first lens cells are arranged in a center part of the first fly eye lens along a width direction center line of the first fly eye lens.

6. An illumination system as claimed in claim 1, wherein the first lens cells are arranged in a radial direction centered on a center of the first fly eye lens.

7. An illumination system in a liquid crystal projector comprising:

an arc lamp for emitting beams of lights by arc light emission;

a parabolic reflector for making total reflection of the beams from the lamp to direct the beams in one direction;

a first fly eye lens having first lens cells each with a center point shifted a distance away from a center axis of the first lens cell, and second lens cells each with a center point at the center axis of the second lens cell disposed in outer parts of the first lens cells, for receiving the beams reflected at the parabolic reflector in correspondence to the center points of the first lens cells and the second lens cells; and,

a second fly eye lens having a plurality of lens cells for refracting the beams from the first fly eye lens into parallel beams.

8. An illumination system as claimed in claim 7, wherein the first lens cells are arranged in a center part of the first fly eye lens along a height direction center line of the first fly eye lens.

9. An illumination system as claimed in claim 7, wherein the first lens cells are arranged in a center part of the first fly eye lens along a width direction center line of the first fly eye lens.

- 5            10. An illumination system as claimed in claim 7, wherein the first lens cells are arranged in a radial direction centered on a center of the first fly eye lens.

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